

Title (en)

Flexible minimum energy utilisation electric arc furnace system and processes for making steel products.

Title (de)

Flexibles Lichtbogenofensystem mit minimalem Energieverbrauch sowie Verfahren zur Herstellung von Stahlprodukten

Title (fr)

Système de four à arc électrique souple à utilisation minimale d'énergie et procédés de fabrication de produits en acier

Publication

EP 2527476 B1 20180919 (EN)

Application

EP 12275038 A 20120405

Priority

US 201113134027 A 20110527

Abstract (en)

[origin: EP2527476A1] A combined arc furnace, ladle metallurgical furnace and vacuum degassing system having the flexibility to produce at least non-vacuum arc remelt, vacuum arc remelt, vacuum oxygen decarburised non-vacuum arc remelt, and vacuum oxygen decarburised vacuum arc remelt steels from one off to continuous casting end uses in steady state or randomised order which utilises only a minimum of energy attributable to preheating hot metal contacting components of the system followed by heat loss reduction of the components and use of a carryover heel in the arc furnace, in which the throughput of the system is limited solely by the melting capacity of the arc furnace.

IPC 8 full level

C21C 5/52 (2006.01); **C21C 7/00** (2006.01); **C21C 7/10** (2006.01); **C22B 9/20** (2006.01)

CPC (source: BR EP KR US)

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Citation (examination)

- S.BINIEK ET AL: "Hydrogen content control during steel melting process at forged product plant of CELSA "Huta Ostrowiec"", ARCHIVES OF METALLURGY AND MATERIAL, vol. 53, no. 3, 2008, pages 741 - 748
- L.ZHANG ET AL: "Large Inclusions in Plain-carbon Steel Ingots Cast by Bottom Teeming", ISIJ INTERNATIONAL, vol. 46, no. 5, 2006, pages 670 - 679

Cited by

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DOCDB simple family (publication)

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